We claim:

1. A salt-like chemical compound of the formula (I),

$$(C_6R^1_5)_3MR^2 \qquad (I)$$

where

R^1 are identical or different and are each a hydrogen atom, a halogen atom, C_1-C_{20}-alkyl, C_6-C_{14}-aryl, C_1-C_{10}-alkoxy, C_2-C_{10}-alkenyl, C_7-C_{20}-arylalkyl, C_7-C_{20}-alkylaryl, C_6-C_{10}-aryloxy, C_1-C_{10}-haloalkyl, C_6-C_{10}-haloaryl, C_2-C_{10}-alkynyl or C_3-C_{20}-alkylsilyl,

M is an element of main group III of the Periodic Table of the Elements, and

R^2 is a substituted or unsubstituted heterocycle.

2. A salt-like chemical compound of the formula I as claimd in claim 1, wherein the heterocycle is pyrrolium, indolium or imidazolium.

3. A salt-like chemical compound of the formula I as claimed in claim 1, wherein M is aluminum or boron.

4. A salt-like chemical compound as claimed in claim 1, wherein the heterocycle R^2 is unsubstituted or substituted by at least one halogen atom, C_1-C_{20}-alkyl, C_1-C_{10}-alkoxy, C_2-C_{10}-alkenyl, C_7-C_{20}-arylalkyl, C_7-C_{20}-alkylaryl, C_6-C_{10}-aryloxy, C_1-C_{20}-haloalkyl, C_6-C_{14}-haloaryl, C_2-C_{10}-alkynyl or C_3-C_{20}-alkylsilyl.

5. A salt-like chemical compound as claimed in claim 1, wherein the heterocycle R^2 is unsubstituted.

6. A process for preparing compounds of the formula (I) as claimed in claim 1, in which compounds of heterocycles R^2 containing elements of main group I or II of the Periodic Table of the Elements are firstly reacted with compounds of the formula $(C_6R^1_5)_3M$ in a solvent to form compounds of the formula $[(C_6R^1_5)_3MR^2]^-$ which are subsequently protonated by reaction with a proton donor, where R^1, M and R^2 are as defined in formula (I).

7. A catalyst system comprising at least one organometallic compound (A) of a transition metal, at least one compound of the formula (I) as claimed in claim 1, if desired an alkyl

compound (B) of an element of group III or IV of the Periodic Table of the Elements and, if desired, at least one support component (C).

8. A process for the polymerization of olefins, wherein the polymerization is carried out in the presence of a catalyst system as claimed in claim 6.